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## ABSTRACT

The document consists of a copy of the article "The Autism Attitude Scale for Teachers" by J. Olliey, et al., suggested guidelines for using alternative versus combined forms of the Autism Attitude Scale for Teachers (AAST), and a copy of the scale with a teacher information questionnaire. It is pointed out that the AAST is useful for assessing the prevailing attitudes in a school or to evaluate attitude change as a function of inservice training or other intervention. Development of the scale is reviewed, and normative data are presented. Guidelines are offered for using the AAST for assessing groups' attitudes on a one time only basis, for assessing change in a group over time, for assessing change both between groups at the same time and within a single group at different times, and for assessing changes in attitudes over an extended period of time. (SB)

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Suggestions for Administration of the  
Autism Attitude Scale for Teachers

The enclosed packet of information contains:

1. A copy of the article: The Autism Attitude Scale for Teachers, Exceptional Children, 1981, 47, 371-372.
2. Suggested Guidelines for Using Alternate Versus Combined Forms of the AAST.
3. The scale with a "Teacher Information Questionnaire" attached.

Most users of the scale will wish to have some information about those who fill it out. The "Teacher Information Questionnaire" is the format that we have used to gather information, but you may wish to alter it for your purposes. The numbers on the right margin are to allow the information to be keypunched directly from these forms. Again, you may prefer another system.

The scale is titled "Belief Scale" on this form, because we do not wish the replies to be influenced by the title. Thus, we prefer to administer it with that rather neutral title.

The scale can be administered in two, seven-item forms or one, 14-item form. Related issues are covered in the enclosed, "Suggested Guidelines for Using Alternate Versus Combined Forms of the AAST".

We would very much like to share information with others who use this scale. We have found it to be convenient and reliable. The mean scores of each item and the correlations of alternate forms (based on the initial administration to 95 regular education teachers) are below.

	<u>Mean Score</u>	<u>Correlation</u>
<u>Form A</u>	<u>Form B</u>	
3.86	3.90	.62
2.38	2.23	.75
2.73	2.67	.52
3.51	3.73	.64
2.66	2.62	.63
3.27	3.32	.59
2.48	2.42	.64
—	—	—
Overall:	20.89	.84

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Suggestions for Administration of the  
Autism Attitude Scale for Teachers

We have also administered the scale to other groups, such as special class teachers of autistic children and special class teachers of other handicapped children. If you use the scale and would like to compare your data to the scores of these groups, please let us know. We would like to know about your findings in order to determine the settings in which the scale appears to be valid or invalid. Of course, we would be pleased to share our current and future findings with you as well.

SCORING INSTRUCTIONS FOR THE  
AUTISM ATTITUDE SCALE FOR TEACHERS

A total score on the Autism Attitude Scale for Teachers (AAST) is computed by summing the scores on the individual items. Note, however, that some items are worded positively (i.e., strong agreement with the item reflects a positive attitude) while others are worded negatively. This must be taken into consideration before computing a total score. All items must be converted to a positive score for a positive attitude by reverse-scoring negatively worded items. The first, second, fourth, sixth and seventh items of Form A and the corresponding items of Form B are negatively worded and thus should be reverse-scored. Reverse scoring can be accomplished by subtracting the obtained item score from 6. Thus, an item originally scored 5 is converted to 1, an item originally scored 4 is converted to a 2, and so forth.

After the appropriate items have been reverse-scored, a total score is computed as a simple sum of individual item scores. Using this system, higher scores reflect more positive attitudes.

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The Autism Attitude Scale for Teachers

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The Autism Attitude Scale for Teachers

As more developmentally disabled children enter the educational mainstream, there will be increased contact between them and general education teachers. Educators not specifically trained to work with exceptional children view the inclusion of such children in general educational settings with a variety of reactions ranging from enthusiasm to apprehension to hostility. Autism seems particularly likely to evoke diverse, and possibly negative, attitudes. Because the disorder is relatively rare (Lotter, 1966) and often judged too severe for remediation in regular educational settings, general educators see few autistic children. As Martin (1974) has noted, this lack of exposure and understanding is a foundation for forming unfavorable attitudes.

Educating autistic children in the least restrictive environment seldom means inclusion in all activities of a regular class. A more likely beginning is the inclusion of special classes for autistic children in a regular public school with, perhaps, some planned contact with the other children during nonacademic activities. To the extent that school personnel are uncertain and apprehensive about the inclusion of autistic children in public school programs, a less than optimal climate for the education of these children is likely to prevail. However, reports of methods for fostering favorable teacher attitudes toward mainstreaming nonautistic handicapped children do exist (e.g., Gregory, 1979; Mandell & Strain, 1978) and may be adaptable to situations involving autistic

children.

In order to assess the prevailing attitudes in a school or to evaluate attitude change as a function of inservice training or other interventions, a reliable attitude measurement tool is necessary. However, few appropriate options exist. Orlansky (1979) reported a method for measuring attitudes toward children with a variety of exceptionalities, but he reported no data on reliability or validity. Other authors have developed scales for measuring attitudes toward mentally retarded children in schools (Mandell & Strain, 1978; Siperstein & Gottlieb, 1978), but these are not ideally suited for at least two reasons, to the assessment of attitudes toward autistic children in public schools. First, as pointed out above, autistic children may be viewed by regular educators with particular apprehension and may consequently evoke qualitatively different attitudes than do other types of handicapped children who are more familiar to teachers. Second, specialists in attitude scale construction argue for the specificity of measurement scales. That is, scales which are more specific with respect to the attitudes or beliefs which they assess tend to yield more accurate predictions of specific behaviors. Therefore, it follows that, all else being equal, a scale measuring attitudes toward autistic children in public schools should yield more accurate predictions of behavior toward autistic children than would a more global scale.

#### The Scale

A scale which satisfies many of the above criteria has recently been developed. The Autism Attitude Scale for Teachers (AAST) was developed as a means of assessing the attitudes of teachers whose schools were

about to receive autistic pupils for the first time and evaluating the effect of inservice training for those teachers. The scale consists of two seven-item alternate forms which correlate .84 with one another. The alpha reliability coefficients (Nunnally, 1967) for Form A, Form B, and the 14 items combined into a single form are .85, .78, and .91, respectively. The items of the scale were selected from a pool of over 40 items intended to tap attitudes toward the inclusion of autistic children in public schools. These items were evaluated by seven professionals experienced in working with autistic children; changes, additions, and deletions to the list were made by these experts. The revised list, which contained 32 items, was administered (in a form which asked for level of agreement or disagreement with each item) to 95 regular education teachers from five separate schools. The 14-item subset retained from this revised list was selected on the basis of its high correlation (.97) with the larger set of items and the degree to which items could be grouped into two comparable forms. As another means of determining the comparability of the alternate forms, the scores, on each of the forms, of teachers at two of the five schools were compared separately from the larger subject pool. This procedure, in effect, constituted a quasi-replication of the findings obtained from the entire sample. In neither school did the teachers' scores on the two forms differ significantly.

In addition, a comparison of AAST scores between "known groups" was conducted as a test of the scale's validity. If the scale is valid, individuals whose behavior reflects positive attitudes toward autistic children and their inclusion in regular public schools should score significantly higher on the AAST than individuals whose behavior does not

suggest a clearly positive attitude. A comparison between 42 special education teachers or teacher aides who had shown favorable attitudes by specifically choosing to work with autistic children and the general education teachers discussed above did, in fact, yield a highly significant difference. The average AAST scores of the special educators were 28.3 and 28.9, on Forms A and B, respectively, while the corresponding scores for the regular teachers were 20.4 and 21.0. For Form A,  $t(118) = 13.08$ ; for Form B,  $t(118) = 13.52$ ;  $p < .0001$  in both cases. Therefore, the processes used in the development of the AAST have yielded a scale that (a) is brief, (b) is reliable, (c) can be used as two alternate forms or a single extended form, (d) is highly representative of the types of questions experts consider appropriate for assessing attitudes toward autistic children in public schools, and (e) accurately reflects known differences in attitudes.

#### Conclusion

As more autistic children are educated in public schools, the attitudes of regular class teachers become more important to consider, and the need to assess these attitudes becomes a practical concern. The AAST is a reliable and brief means of assessing these attitudes.

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SUGGESTED GUIDELINES FOR USING ALTERNATE VERSUS  
COMBINED FORMS OF THE  
AAST

The AAST may be used as a single 14-item questionnaire or as two alternate forms (Form A and Form B) consisting of seven items each. The choice of alternate or combined (14-item) forms depends on the objectives of the researcher or administrator. Below are a few examples of situations in which the AAST might be used and suggestions for its administration.

1. ASSESSING GROUPS' ATTITUDES ON A ONE-TIME BASIS ONLY. In some instances, the AAST is to be used to assess attitudes of a group or groups and there is no intention of reassessing their attitudes. This might be the case, for example, if a researcher wanted to compare scores of special education teachers to the "baseline" scores of the regular education teachers who were used in the development of the AAST. The data of interest are the average scores of the two different groups of teachers. Neither group will be reassessed at some later time. In an instance such as this, using the full 14-item version of the AAST may be most advantageous, since the AAST, like all such scales, yields more reliable data when more items are included.

2. ASSESSING CHANGE IN A GROUP OVER TIME. Another situation in which the AAST might be used is to measure changes in a group's attitude from one occasion to another. Typically, this comparison is intended to measure the effect on attitudes of some event (such as inservice training) which occurs between the first and second administrations of the AAST. In this instance the availability of alternate forms (A and B) of the AAST is helpful. If identical questionnaires are administered to a group of individuals on two separate occasions, the respondents may, on the second occasion, remember their previous answers and answer the same way again. If alternate forms consisting of different items are given, the likelihood of respondents' trying to match their previous answers is reduced, and they are more likely to answer on the basis of their actual beliefs and attitudes.

Although Forms A and B of the AAST were designed so as to yield equivalent information even though different items are used, a cautious researcher might wish to take an additional precaution. Rather than giving all of the respondents one form on the first occasion and the other on the second, the forms can be counterbalanced. That is, half of the subjects can be given only Form A during the first administration and then only Form B during the second, while the other half receives B first, and then A. In this way, any differences in scores which are due to differences between forms will not be mistaken for differences due to whatever treatment occurred between administrations of the AAST.

3. ASSESSING CHANGE BOTH BETWEEN GROUPS AT THE SAME TIME AND WITHIN A SINGLE GROUP AT DIFFERENT TIMES. Occasionally, a combination of both of the above objectives is desirable. For example, a researcher might want to test two different groups initially, provide inservice training to only one group, and then retest both. In this way, the amount of change which occurred during the inservice training can be compared to the amount of change over the same time period in a group not receiving the inservice training. In this instance, using the AAST as described in #2 above is probably best. That is, for each group, half of the respondents would first receive Form A and the, the second time, Form B. The other half of each group would receive B first, then A.

4. ASSESSING CHANGES IN ATTITUDES OVER AN EXTENDED PERIOD OF TIME. If the time between the first and second administration of the AAST is fairly long (i.e., a few months or more), it is unlikely that respondents will remember their answers to individual items for that long a time. Therefore, using the entire 14-item version is probably advisable. This circumstance might arise, for example, if attitudes were to be assessed in new teachers initially when they taught their first group of autistic children and again at the beginning of the next school year.

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# TEACHER INFORMATION QUESTIONNAIRE

1. Identification number (last six digits of social security number) / / / / / /
2. Date \_\_\_\_\_
3. Which applies to you (please check one only)
  - a) I have just completed an in-service training workshop aimed at teaching educators more about autism.
  - b) I completed a workshop of this type earlier this school year (several weeks ago).
  - c) I have just begun or will soon be participating in a workshop of this type.
  - d) I have not been to this type of workshop and I don't know of any plans to have one in the near future.
4. Have you filled out this questionnaire and the attached belief scale (either Form a or Form b) before? (check all that apply)  
 No  
 Yes, before or during a workshop on autism.  
 Yes, after a workshop on autism.
5. What is your educational role? (please check only one)  
 General Education Teacher  
 Special Education Teacher  
 School Psychologist  
 Teacher Aide  
 Principal  
 Other (specify) \_\_\_\_\_
6. In what level school do you work? (please check only one)  
 Primary  
 Jr. High or middle school  
 High School  
 Other (specify) \_\_\_\_\_

PLEASE DO NOT WRITE  
IN THE SPACES  
BELOW

1 2 3 4 5 6  
/ / / / / /  
8 9 10 11 12 13

15

17 18 19

21

22

PLEASE DO NOT WRITE  
IN THE SPACES  
BELOW

7. How long have you been an educator?

- Less than one year
- One to two years
- Two to five years
- Five to ten years
- More than ten years

24

8. What types of exposure have you had to exceptional children? (check all that apply)

- Taught a special class
- Taught some exceptional children who were mainstreamed into my regular class
- Volunteer work with exceptional children
- Indirect contact with exceptional children who were in other classes of my school
- Learned about exceptional children in college courses
- ..one of the above

26 27 28 29 30 31

## BELIEF SCALE INSTRUCTIONS

On the following pages(s) you will find a list of sentences. Each sentence is a statement about a belief. Beside each sentence is a set of numbers which range from 1 (strongly disagree) to 5 (strongly agree). For each sentence you should circle the number that shows how much you disagree or agree with the sentence. The more strongly you agree with the sentence, the higher will be the number you circle.

Please make sure that you answer every item and that you circle only one number per item. As much as you can, try to respond to each item independently. When making your choice, do not be influenced by your previous choices. It is important that you respond according to your actual beliefs and not according to how you feel you should believe.

### Belief Scale (a)

	strongly disagree	disagree	uncertain	agree	strongly agree
Only teachers with extensive special education training can help an autistic child.	1	2	3	4	5
Mealtimes behaviors of autistic children are disruptive and negatively influence the behavior of children around them.	1	2	3	4	5
Schools with both normal and autistic children enhance the learning experiences of normal children.	1	2	3	4	5
Normal children and autistic children should be taught in separate schools.	1	2	3	4	5
Autistic children can learn from a good teacher.	1	2	3	4	5
Regular schools are too advanced for autistic children.	1	2	3	4	5
I would not want the children in my class to have to put up with autistic school-mates.	1	2	3	4	5

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PLEASE DO NOT MARK BELOW THIS LINE

1  
33      35 36 37 38 39 40 41

Belief Scale (b)

	strongly disagree	disagree	uncertain	agree	strongly agree
Teachers not specifically trained in special education should not be expected to deal with an autistic child.	1	2	3	4	5
Autistic children are too impaired to benefit from the activities of a normal school.	1	2	3	4	5
Schools with both normal and autistic children enhance the learning experiences of autistic children.	1	2	3	4	5
If I had the choice, I would teach in a school in which there were no autistic children.	1	2	3	4	5
A good teacher can do a lot to help an autistic child.	1	2	3	4	5
Autistic children cannot socialize well enough to profit from contact with normal children.	1	2	3	4	5
It's unfair to ask teachers to accept autistic children into their school.	1	2	3	4	5

PLEASE DO NOT MARK BELOW THIS LINE

1  
43 45 46 47 48 49 50 51